

## The Plight of Asian Elephants between the Gods and Humans

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The Asian elephant is distributed in many types of habitats throughout its range, which spans across 13 countries. The distribution of elephant is widely influenced by the distribution and seasonality of its natural food plants. In tropical regions during the dry season the diet is dominated by browse, while grasses comprise the majority of the diet when they are plentiful during the wet season. In recent decades, large-scale conversion of forests to agricultural land and human settlements has significantly reduced the area of elephant habitat, resulting in reduced accessibility of natural fodder and water, and increasing seasonal forest fires. Such factors are forcing a large percentage of these animals to migrate to areas outside of their historical range, and to target alternative foods. Habitat loss, degradation, fragmentation, conversion, and resource exploitation due to human activities result in alterations of the extent and spatial configuration of habitats available for wild species. Especially in tropical forests, habitat fragmentation often restricts wild fauna to habitat 'islands'. Wide-ranging animals, exemplified by species such as Asian elephants (*Elephas maximus*) and African elephants (*Loxodonta africana*), are threatened by many human activities. For Asian elephants, large scale conversion of forests to monoculture plantations, croplands, and developed areas, has drastically reduced and fragmented available habitats. This has resulted in compression of elephant herds in protected areas causing escalation of human-elephant conflict in the adjoining human-dominated landscapes. Landscape variables such as spatial heterogeneity in vegetation cover, seasonal change in resource availability, and human density influence elephant distribution and use of natural and man-modified habitats, and patterns of human-elephant conflict and encounters. Close and frequent encounters between humans and elephants in landscapes with settlements and croplands have detrimental effects on long-term conservation of elephants. As a result of fragmentation and the ensuing interspersions of human habitation, cultivation, and natural habitats, conflicts between humans and elephants are now widespread across Africa and Asia. In such situations, understanding the relationships between landscape elements such as human habitations, habitat remnants, and elephant activity is an important area of research. India holds by far the largest number of wild Asian elephants, estimated at about 26,000 to 28,000 or nearly 60% of the population of the species. *Elephas maximus* is placed in Schedule I and Part I of Indian Wildlife Protection Act (1972) conferring it the highest level of protection. Historically, the significance of the elephant in Indian culture and mythology, as well as its economic and military role in subcontinental armies, has also contributed to a remarkable level of tolerance and support of people towards its survival and conservation. However, the resource needs of a growing human population (over 1.2 billion people: Census 2011) of a country experiencing strong economic growth, growing and dispersing

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elephant populations at regional scales, shrinkage and fragmentation of elephant habitat, and increasing human-elephant conflicts emphasize the urgent need for appropriate long-term policies to manage and conserve the species.

The Asian elephant (*elephas maximus*) has a long and storied relationship with mankind. From the earliest times, humans have wondered at these magnificent and awe-inspiring creatures and their cousins. Whether hunting woolly mammoths in frigid Northern Europe or riding a pachyderm through dense jungles in Burma, without fail every civilization that has come into contact with elephants has utilized or honoured them to some degree. Not only do they show up in the Biblical chronicles of the Hasmonaean kings of Judea (1 Maccabees), but also some of the earliest human writings in the form of the Mahabharata, one of two major Vedic texts from ancient Indian civilizations, in which the practice of riding an elephant is said to make a king indomitable. The Kautilya Arthashastra (c. 300 BCE – 300 CE) records the presence of elephants in eight gajavanas or elephant forests north of Krishna river, including places such as Saurashtra from where it has completely disappeared. Information on the distribution of elephants in central India is available from memoirs and writings of the Mughal emperors of the 16th and 17th centuries, these indicate that elephants were once widespread from southern Uttar Pradesh through Madhya Pradesh and Chhattisgarh from where they disappeared (though elephants have recolonized Chhattisgarh in recent times). By the late 19th century, expansion of agriculture and settlement had shrunk their distribution to the forests at the foothills of the Himalaya, east-central India, and southern India. Although, the number of wild elephants in historical times is not known, a record of the French navigator Pyrard de Laval from the period of the emperor Jahangir (early 17th century) indicates a total of about 40,000 elephants (possibly captive plus wild) within the territories of the Mughal empire and Bengal. Elephants are impressive animals, and both *elephas* and its African cousin *loxodonta africana* have made a tremendous impact on the historical record. Both species bore witness to the rise and fall of empires, and in many cases were instrumental in these events.

However, it must be noted that elephants of all species, not just *elephas*, are listed as endangered under the IUCN red list. The greatest threats that elephants face today are habitat loss and poaching, as well as other conflicts with humans in the ever shrinking wilderness of South Asia. Despite its illegality, elephants continue to be sought out and killed for their ivory throughout both Asia and Africa, and much of the elephant's habitat is destroyed every day through deforestation. Although many thousands of elephants once roamed the regions during the epochs discussed in this paper, it is estimated that less than 40,000 Asian elephants survive worldwide today. A bit of caution must come with this estimate, however, as we do not actually have a solid idea (or even a close estimate) of how many Asian elephants may survive.

Further, this global population estimate has held stable at between 30,000 and 50,000 for more than a quarter of a century despite significant changes in environment, human encroachment, and poaching. Indirect methods must be employed in order to track populations through heavy jungles, such as dung counts and aerial observations, which can be subject to wide margins of error and unavoidable inaccuracies. There could very well be fewer than 30,000 Asian elephants today; a sobering thought considering the thousands of elephants described in historical accounts and the links between

mankind and these surprisingly gentle and empathetic creatures. Although elephants have long served humans as faithful and loyal companions, it is now mankind's turn to protect and preserve these magnificent animals.

## **Mythology, Biology, and Employment**

Mankind's use of Asian elephants, or rather more accurately its "employment" of them, goes back to some of the earliest recorded stories and epics. In the Mahabharata, a Sanskrit epic with origins believed to go back as far as the 8th and 9th centuries B.C.E., elephants are featured in the battles of ancient Indian civilizations. Within the text Ganesha himself, the elephant-headed god, wrote the epic from the poet Vyasa's dictation, and later myths tell of Ganesha breaking off one of his own tusks to use as a pen. Elephants are likewise found in the earliest examples of Indian art and society in the archaeological records of Indus valley civilizations at Harappa and Mohenjodaro. Terracotta seals, of which there are many, depict tusked elephants with ropes dangling from their bodies and are used as firm evidence that humans had captured elephants as early as 2000 B.C.E. This, of course, does not include any of the prehistoric mammoth hunts by human tribes in Northern Europe or the interactions that ancient humans almost certainly had with elephants in Africa and Mesopotamia. Numerous elephant species appear to have been prevalent around the world, from the downward-protruding tusks of *dinotherium* to the long-bodied *cuvieronius* of Argentina. The mythical origins of *elephas* are described by Nilakantha in his treatise The Elephant-sport (the *Matanga-lila*) as one of the first creatures to inhabit the earth; they could "go anywhere they pleased, and assume any shape; they roamed as they liked in the sky and on the earth." Because of their notable love of water and loud trumpeting, throughout Hindu myth elephants are described as harbingers of rain and the monsoon, and are often described as living in clouds and creating crashes of thunder. The greatest elephant, *Airavata*, was born from the great churning ocean of the Mahabharata that created the world, and all elephants serve as the vahana, or "sacred vessel", of Indra, the god of the heavens who rides *Airavata* and is responsible for rain, thunder, lightning, and the monsoon. Elephants are excellent swimmers and love water, and even today there is a herd of elephants in the Andaman archipelago, just off the eastern coast of India, where elephants swim from one island to the next, sometimes crossing great distances of open sea. The trumpeting of elephants and their huge, earth-shaking size, makes it clear where these myths come from, as well as the Sanskrit word for elephant, *gaja*, which comes from the root *garj*, meaning "thunder." It is significant to note that, for civilizations of South Asia, the monsoon and rain are considered both life-giving and destructive forces, and are exceedingly powerful natural phenomena; to encounter an elephant, then, is to encounter thunder, to tame one is a mighty and respectable feat, and to study elephants (*gajashastra*) is a noble philosophical pursuit. But why did humans tame elephants in the first place? There are a number of large land mammals, like giraffes, rhinos, or even elk, that humans have long been in contact with that have never been consistently tamed (though, perhaps not for lack of trying). Although their size and strength, along with their natural weaponry and docility when trained, makes them intimidating and desirable for warfare as well as heavy work, it is most probably the more "human" aspects of elephants that have prompted mankind to continually seek out and tame them. Their long eyelashes and small eyes belying their size makes their gaze seem almost human, and their skin appears as an uncannily similar close-up view of our own. The long and powerful proboscis which

they use to manipulate objects with not only great force, but also precise dexterity, comes to us as something so similar to our own hands that the Hindi word for elephant, *hathi*, derives from the same root as the word for “hand.” The intelligence of elephants, too, is on par with higher level primates and often cited as an important aspect of mankind’s ability to tame them. Elephants are exceptionally expressive animals, and they are in constant communication with one another while traveling in a herd through a range of vocalizations from low rumbles to shrill trumpeting. It has been found that elephants have hundreds of distinct gestures and signals, and touch one another constantly while traveling in a herd.

Muhammad al-Damiri, a 14th-century Egyptian lexicographer, even went so far as to say that elephants would be able to speak, if only their tongues were turned upside-down. Surprisingly, some analysis of communication between elephant riders (*mahouts*) and their charges in India has shown a remarkably similar, seemingly ancient vocabulary used among disparate regions where entirely different languages are spoken. The similarity of these commands may point to a tradition passed down from some of the earliest times, and this “elephant language” has even been mentioned in the Roman Claudius Aelianus’ zoological work *On the Peculiarities of Animals*, that *mahouts* spoke with their elephants “by some words in his native speech which thanks to a mysterious gift of nature peculiar to this animal the Elephant can understand.” There were many methods of capturing elephants in classical times, from pits and snares to using tamed elephants as bait. The most popular and efficient method, however comes to us from India and is described by Megasthenes, Seleucus’ ambassador to the court of the Indian emperor Chandragupta Maurya. This method, whereby *mahouts* would capture whole herds at once in a *keddah* (a corral that looks similar to an hourglass with one open end) through the use of fire, loud noises, or attractive females. Trainers would not keep the entire herd, only the best or most useful specimens, and typically let most of the elephants back into the wild. For a *mahout* in ancient and medieval times, their elephant was of primary importance, and although cruelty can often be seen in accounts of capture and training, especially in the use of the *ankusha*, the bond between a *mahout* and his elephant often became incredibly close. In a discussion about *mahouts* and elephant training, especially as it concerns war elephants, there are a few points of primary importance: the nature of elephant “employment”; the longevity of elephants; the typical uses for elephants in day-to-day work; and finally, the role elephants play in battle. First, elephants are one of the only, if not the only, animals that have been consistently tamed by humans but never thoroughly domesticated or bred—at least, not on a scale significant enough to warrant mention. Part of this lies in the gestation period for elephants of nearly two years and the extreme difficulty in getting elephants to mate in captivity, as well as the fact that female elephants are only receptive to fertilization for five out of every 1460 days. Accounts of elephants in the eras of Alexander and Akbar certainly refer to elephants that have been trained for warfare, but it is safe to assume that of these very few were born and raised in captivity, nor were a large number the manufacture of selective human breeding. This fact brings up an important question: ***how, if Asian elephants were rarely actually bred for warfare, did humans capture, train, and make consistent use of these otherwise wild elephants?*** The answer lies in an interesting aspect of the relationship between humans and wild elephants, whereby elephants are, essentially, hired out or contracted as day labourers by their *mahouts*. This is, in general, due not only to the elephant’s own agency, but also due to the inefficiency of the animals, since their stomachs will only digest less than half of anything they eat. Because elephants daily consume vast quantities and

defecate about every one hundred minutes (around 250 pounds each day!), it is more effective to allow them to roam free and feed themselves than it is to gather enough fodder and dispose of the waste created afterwards. In fact, the idiomatic phrase “white elephant” comes from this very dynamic; if one gives an enemy a white elephant—which was seen as a sacred and rare creature—they can be assured to see their rival slowly go bankrupt trying to feed and maintain the beast. It was a form of revenge. However, the heavy monsoon rains that frequent India allow for jungles of great density, such that even creatures as ravenous and inefficient as elephants are able to survive in large numbers. “Tame” elephants not in a king or emperor’s stable were those who agreed to return to town each day and work in exchange for food, a bath, and perhaps scented oils or flowers. These elephants slept and lived in the forest or jungle and returned each day, as a human employee might work for a few hours and return home. Simply put, elephants, even those trained for warfare, agreed to work for humans, and acted primarily as companions, not pets. The expense of keeping elephants stabled led to a culture that treated them as respected workers or the sole prerogative of kings, and according to Kautilya’s *Arthashastra* (a Maurya guidebook on Indian kingship), elephant forests were essential to maintaining able elephant corps. Only the richest and most powerful kings could afford to maintain their own stables of elephants, and even then it was generally easier to let them roam in specially cordoned off elephant forests, or *gajavanas*, where any hunting or capture of the king’s elephants was punishable by death. These elephant forests reveal the monopoly that the Mauryas held on elephants, as well as some of the world’s first efforts towards conservation. Preserving forests meant preserving valuable elephant forces, and as such clearing lumber or poaching within these areas was strictly forbidden and, once again, punishable by death. Although this simple representation of the relationship between an elephant and a mahout does not fully encapsulate the years of interaction and bonding that take place, it does present a dynamic that will be important to consider later when talking about how elephant’s corps were recruited and deployed in battle. Throughout Indian history, political divisions and territories created a tapestry of villages and small states, each independent or beholden to a king (*raja*) or other small centralized government. There are notable exceptions, the Maurya, Vijayanagara, and Mughals among them, but in general villages in India were relatively autonomous. However, when war came and a *raja* (or, in some instances, a queen, or *rani*) needed to recruit soldiers, he pulled forces from his subjects, including the elephants that were otherwise roaming free. In this context, elephants trained for war were almost treated in the same manner as humans were. Standing armies were rare in Indian kingdoms due to the cost of outfitting and maintaining so many soldiers, who generally were not trained very well and were called upon only when needed while left to their own devices in peacetime. Second, the longevity of elephants is not an insignificant factor in their training, as many elephants can live upwards of sixty or even seventy years, though faulty reports of them living longer were common in the historical record up until quite recently. Hellenistic Greek zoologists and historians claimed that elephants had lifespans longer than two hundred years, though this is likely attributable to the comparatively short lifespans of their trainers, not to mention the brief lives of humans in general for much of history. Mahouts considered older elephants captured in the wild as preferable to younger ones, though those intended for warfare could be captured as early as age five in order to supplement their diet and aid in their growth. For the most part, however, trainers avoided capturing calves or elephants that had not matured yet in order to conserve resources by letting their mothers raise them, and twenty was considered by Kautilya to be the ideal age for capture. Male elephants were preferred as fighting animals, due

mostly to cultural sexism, size, and the fact that unlike *loxodonta*, only male Asian elephants have tusks. However, this is not to say that female elephants were not used, though they were deployed almost exclusively as pack animals involved in military logistics.

The third part of the human-elephant relationship to consider are the myriad tasks which Asian elephants were employed in on a daily basis when not involved in war. When an elephant returned to town or its mahout sought it out in the forest or jungle, their job typically involved heavy labor, transportation, or both. Due to the density of monsoon jungles in South Asia, traversing the thick underbrush can be difficult or even impossible, especially when one considers the dangers of large predators like tigers that inhabit these regions. The massive size of elephants, however, makes them exceptionally well-suited to act as all-terrain-vehicles of sorts, and they can be trained to overcome their natural fear of tigers. An elephant's strength allows it to clear brush and other obstacles, while its affinity for water and strong swimming skills make it suitable for crossing rivers and other bodies of water. Steven Alter describes riding elephants in India, "the feeling of freedom in the forest and the elephant's ability to go anywhere, pushing through obstacles that seemed impassable... The elephant was able to climb steep hills and embankments... she was surefooted on the slippery stones and never seemed to stumble even when she picked her way through a maze of fallen tree trunks." Further, the prodigious appetite of elephants led to their use as clear-cutters of sorts, and villages often guided elephants to trees and brush that needed to be disposed of in order to expand the town or prevent the encroaching forest from overwhelming the human settlement. On that note, as well, elephant dung was collected and used as a fertilizer and fuel. Their strength also made them excellent for transporting large objects, such as timber, or aiding humans in construction projects by carrying planks of wood or holding up structures. These jobs also translated well into military applications. Supply lines and infrastructure are essential to any army that plans to operate for more than a short period of time, and although horses and oxen can be adequate, elephants were able to efficiently and intelligently complete tasks. Additionally, elephants could do with their trunks, tusks, and girth what other beasts could not, such as destroying enemy bridges and buildings, and only two elephants were needed to transport large modern cannons. It is easy to believe that mahouts, though not necessarily of a higher caste in Indian society, would be very important to the daily workings of a village or other human settlement. Having the skill and bravery required to tame and guide elephants was a respectable and widely employable talent, and to this day many mahouts came from generations of elephant tamers, the secrets of elephants passed down from father to son. Finally, we come to the role of war elephants in battle. Kautilya himself briefly sums up their incredible utility:

*Their functions are: marching in front; making new roads, camping grounds and fords; protecting the flanks; helping to cross water and climb or descend from mountains; entering difficult or crowded places; starting fires or extinguishing them; using elephants alone for victory; reuniting [one's own] broken ranks and breaking up the [enemy's] unbroken ranks; protecting against dangers; trampling the [enemy's] army; frightening [by mere presence]; causing terror [in the enemy's army by action]; adding magnificence; capturing and liberating [battle positions]; destroying ramparts, gates and towers; and bringing [one's own] and carrying away [captured] wealth.*

First and foremost, the sheer size and strength of elephants makes them a powerful psychological weapon. Standing more than eight feet tall, an elephant fully armed and armoured would have been a terrible sight for any soldier, let alone one that had never seen a beast like it before. Asian elephants when Alexander would have encountered them were typically lightly armoured by colourful composite armour crafted from heavy cloth with small metal plates sewn into it. Elephants can overheat easily in heavy metal armour, and because an unhappy elephant will typically just leave the battlefield or angrily lash out at whatever is nearby, most commanders kept their elephants protected by surrounding them with infantry guards to prevent enemy soldiers from attacking the elephant's softer and more vulnerable underside. Further, the psychological effect that elephants have on horses is a well-noted phenomenon, to the extent that Alexander at the Battle of Hydaspes "...he imagined that his horses would refuse to set foot on the opposite bank, since the elephants would immediately charge and the sight and sound of the beasts would terrify them..."

Elephants were such a fearful weapon that a mythical Assyrian queen called Semiramis (who may have been Queen Sammu-ramat, an 8th-century B.C.E. dowager queen who briefly ruled Babylon) took great pains to counter war elephants as she planned her invasion of India. Her spies reported that the Indian king Stabrobates was capturing elephants from the forest for his army, and recognizing their threat, Semiramis delayed the attack for two years. Mesopotamian elephants had been hunted to extinction centuries earlier for their ivory, and so in this time the queen ordered that every dark haired ox in the empire be butchered, its hide sent to Babylon. She ordered her craftsmen and tailors to create elephant suits for an army of camels, in the hopes that these would terrify the Indian army and confuse the king's elephants, and lend her a decisive advantage. All of these efforts were in vain, however, and the strategy—although cunning, and nearly successful—failed. When Stabrobates' mahouts advanced, their elephants, although confused at first at the strangeness of these contraptions, soon enough began to tear the elephant-suits apart, and Semiramis' army was routed by the advancing behemoths. The queen did not reign long afterwards. Yet, despite the elephant's advantages as a psychological weapon, there were some disadvantages to its deployment as well. Elephants are notoriously strong-willed creatures, and they become habituated to routines such that "when their normal activities are changed, they become confused or belligerent." Their deployment had to be considered carefully, as well, because of their infamous penchant for turning on their own forces. It was common practice for mahouts to get their elephants drunk on rice-wine before battle, and male elephants in musth—a hormonal rage that could last anywhere between a month to 90 days—were often deployed on the field. This combination of wine and musth made elephants fearsome on the battlefield and ferocious in battle, but it also increased the odds of them going berserk and attacking anything in sight, ignoring their mahout's commands. This well-established fact has led some historians to believe that elephants were unpredictable and sub-par weapons, their use a novelty of unskilled commanders rather than an actual effective weapon. However, this notion does little credit to military leaders, let alone to the elephants themselves. Such an inefficient animal, with such a strong will and so many quirks, would never have been used so consistently were it not an advantageous piece of military "hardware." Eventually, by the time of Akbar and the Mughal Empire, elephants had begun to wear lamellar armour, a series of light, overlapping plates stitched together. Elephants in this period were often covered in all manner of spikes, with daggers or flails attached to their tusks, their trunk, or both.

Even more impressive were “elephant swords,” described as being nearly twelve feet in length and held by the elephant in its trunk or attached to its trunk armour; combined with bladed tusks and other elephant weaponry, elephants certainly were an exceedingly dreadful opponent on the battlefield. Diodorus Siculus, a Sicilian historian, described the means by which elephants killed their enemies: . . . the elephants, applying to good use their prodigious size and strength, killed some of the enemy by trampling them under their feet, and crushing their armour and their bones, while upon others they inflicted a terrible death, for they first lifted them aloft with their trunks, which they had twined around their bodies, and then dashed them down with great violence to the ground. Many others they deprived in a moment of life by goring them through and through with their tusks. In addition to the elephant’s armour and weaponry, howdahs, or open-topped wooden boxes of about waist height, would often be secured atop the elephants back. Soldiers with javelins or bows would ride in the howdahs and these men, combined with the mahout on the elephant’s neck (usually with a long spear, javelins, or a bow of his own), made elephants mobile weapons platforms as early as the 6th-century B.C.E. Due to their intimidating stature as well as their advantageous height, armoured elephants were traditionally used as mobile fortresses or strong points in Indian armies. By strategically placing elephants along the line, armies were able to keep their lines stable and prevent cavalry from rushing in at the flanks.

In fact, MacMunn called the elephants just that in his description of King Porus’ forces, and it is an apt comparison. Although elephants and tanks can be both manoeuvrable and swift for short periods of time, on the whole they move slowly, and are typically most advantageous when situated in a role supporting a main infantry body. When the shock of the rumbling beast wore off, its weaknesses became clearly visible; by covering an elephant or a tank with infantry, the odds of it being surrounded or attacked in a blind spot were greatly reduced. The addition of more and more firepower atop the elephants, along with heavier armour, likewise evokes the image of an elephant-tank: “musketeers and cross-bowmen were placed on the mountain-backs of those enormous elephants, which were furnished with suits of mail (kajim) and defensive armour, and made ready for war.” Elephants were considered so important in an Indian king’s army that the names of individual mahouts and elephants became as well-known and respected as any other warrior on the battlefield. Taking all of this into account, it is easy to see how and why elephants were used the way they were. Not only were there social and cultural constructs dictating their employment on the battlefield and within militaries, but there were considerable physical and biological factors to consider. These factors all came into play for every king, emperor, or simple mahout that made use of elephants. Knowing how elephants operate and why they behave the way they do provides context for the decisions made by such figures as King Porus, Alexander the Great, Seleucus, Akbar, Pyrrhus, Hannibal, and many other military leaders in history.

Elephant is a symbol of strength, virility, wisdom, fertility, prosperity and royalty. It is one of the Hindu mandalas and is associated with Indra, the Vedic deity. It is seen on the seals of IVC. The elephant, mountains, clouds and the cobras were all believed to belong to one family and were thought to be born from water. It is believed that the dig-gaja or the elephants of the four quarters support the caryatids of the Universe, who support the dome-shaped shell of the firmament on their backs. This belief supports the depiction of elephants supporting the lintels of the Sanchi toranas and supporting the celestial world in the rock-cut temple of Kailashnath at Ellora and many South Indian temples. The



rangoli of elephant is drawn by young girls in Maharashtra, in the period when the Sun moves to the thirteenth constellation of the zodiac called Hasta, which means Elephant. The rainfall in this period is considered very beneficial for the rabbi crops and the farmers in Maharashtra look forward to these rains.

On a seal at Mohenjodaro we find an elephant making obeisance before a Swastika symbol. This representation leads us to believe that the symbol had acquired in those early years a sort of mystical power.

However, that does not mean elephants have fallen out of favour. Across South Asia, Burma, Thailand, and Vietnam, elephants are still used on a daily basis for a variety of the same tasks they were employed in during the ages of Alexander and Akbar. Mahouts still gather their elephants to help fell trees and carry lumber or traverse dense jungles, though both *elephas* and its habitat grow equally scarce. In fact, elephants have been used during war in our own time. Elephants were employed by the Vietcong during the Vietnam War, and currently the only region to make use of elephants in war is Myanmar, or Burma, in one of the world's longest-running civil wars. However, one of the more famous examples of modern war elephants can be found in James "Elephant Bill" Williams "elephant company" during WWII. When Imperial Japanese forces invaded Burma in 1942, Williams and a team of mahouts aided the British army and Burmese resistance in driving out the Japanese by carrying supplies, transporting the wounded over rough terrain, and most notably building and destroying roads and bridges. Elephant Bill instantly became famous and has lived on as a remarkable hero of WWII, though once again elephants became caught in the crossfire of human warfare. Beyond this, although the ivory trade has been banned since 1989, poaching and illegal trade continue to flourish. In fact, elephant poaching is on the rise, and these vulnerable populations are part of an illegal wildlife trade that brings in billions of dollars annually. Ivory is such a robust industry that illegal poaching is the primary factor for the diminishment of elephant populations. Very recently, too, the killing of elephants for their tusks has been considered a worldwide safety concern, with a theory that revenue from the ivory trade may be funding terrorist groups in Africa. Although the evidence may at first appear overwhelming, this may not actually be the case, but the fact that funds from ivory could potentially fuel some of today's most atrocious acts is chilling. There is a bright side, though. Recently, the Ringling Brothers and Barnum & Bailey have announced that after 145 years, they will be retiring their elephants by 2018. The circus group, in response to public opinion, has decided to return its 13 traveling Asian elephants to their conservation centre in Florida. Around the world, efforts are being stepped up to protect elephants and other endangered species, and protecting wildlife is increasingly being seen as a matter of global importance. It may be odd to look to the conservation of elephants after so much consideration of their role in warfare. Certainly all animals should be left out of human conflicts, and the deaths of creatures by human hands who have no interest in affairs of mankind are each a tragedy. However, the war elephant brings forth a strange paradox: some of the earliest conservation efforts in human history, the Maurya *gajavanas*, only came about because of *elephas*' role in Indian armies. The economic and military value of elephants may have prevented their wholesale destruction, and the bonds that mahouts formed and still form with their mighty charges have allowed for unique insights into the behaviour and biology of these magnificent creatures. The world would be a very different place were it not for elephants and their loyal sacrifices for their human friends. Allowing elephants to move

ever closer to extinction disregards the profound impact they have had on humanity, and does a great and shameful dishonour to the giants whose shoulders mankind stood upon to build its empires.

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